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Vol. XXXVIII No. 10

ALBANY MEDICAL ANNALS

Journal of the Alumni Association of the
Albany Medical College

OCTOBER, 1917

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ACADEMY OF MEDICINE
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ALBANY MEDICAL ANNALS

Journal of the Alumni Association of the Albany Medical College

ALUMNI COMMITTEE

A. VANDER VEER, M. D. W. G. TUCKER, M. D. ANDREW MACFARLANE, M. D

EDITED BY

J. MONTGOMERY MOSHER, M. D.

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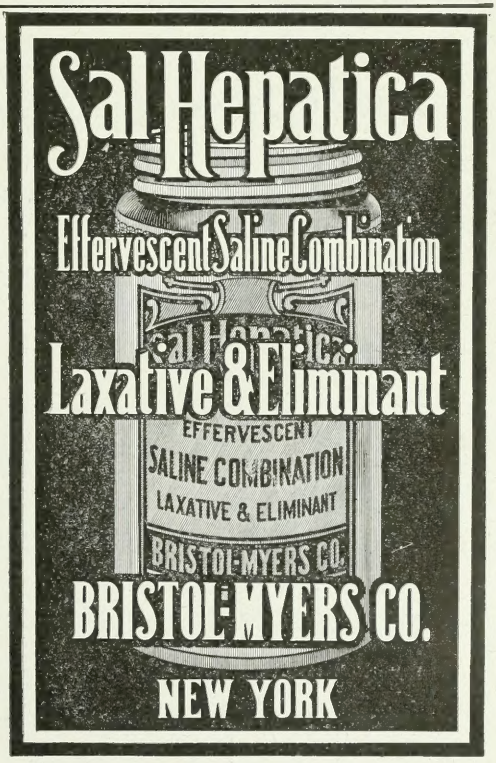

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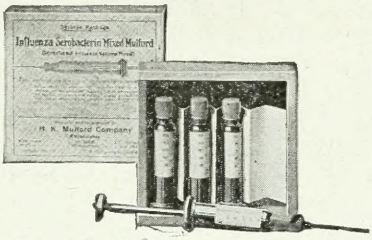

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Publisher's Department

FALLACY OF PHLEBOTOMY.—A few decades since, bleeding or phlebotomy was the universal practice with physicians in the treatment of pneumonia. This procedure usually served to reduce the fever and inflammation and at least tended to give temporary relief by lowering the temperature and pulse rate. This was frequently misleading as the temperature and rapid pulse beat would often return in a few hours with renewed activity, thus proving the fallacy of the procedure. In many cases of pneumonia the patient is anemic and phlebotomy is detrimental and positively contraindicated, the loss of the vital fluid only made it the more difficult for the patient to recover. However, at the present time there is no necessity for phlebotomy as we have in our hands an agent which accomplishes all of the good effects of phlebotomy with none of the possible evil effects. The preparation, Antiphlogistine, applied over the chest wall bleeds the patient into his superficial capillaries—and may be used with much benefit on all cases of pneumonia.

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VOL. XXXVIII OCTOBER, 1917 No. 10

ALBANY MEDICAL ANNALS

Original Communications

HYGIENE AND GOOD CHEER.

An address delivered before the students of the Albany Medical College of Union University, at the Education Building, Albany, N. Y., on Wednesday, April 25, 1917.

BY ALDEN CHESTER,

Justice of the Supreme Court of New York.

Young Men of the Medical College:

You have been favored in this course of lectures on public health and preventive medicine with addresses from many men of great scientific attainments in the specialties which they have brought to your attention. While I have not been able to give myself the pleasure of listening to any of them, I know from the subjects they have treated and the men who have spoken that the course has been of great value to students preparing themselves for the medical profession. After being surfeited, as I know you have been, with so much of scientific and technical value I have thought it would not be a half hour misspent if your minds should at this time be turned to something in a lighter vein but still I believe of considerable moment as related to your success or failure in the professional careers you are seeking to enter upon.

Let me therefore ask your indulgence while I speak of the hygienic value of good cheer, or of cheerfulness as an aid to hygiene. I might, following the example of my ministerial friends, go to the Scriptures for my text and remind you that in Proverbs it was declared by Solomon, a thousand years before the Christian era, that "a merry heart doeth good like a medicine but a broken spirit dryeth the bones." (Proverbs 17:22.)

A humorous paper recently mentioned a case where a physician—not however an Albanian I am glad to say—told a very sick patient after a careful examination that he would let him know in a week whether he was going to live or die. "But," said the patient, "What am I to do in the meantime?" The doctor replied "You must take a complete rest and above all don't worry about anything." This doctor in the advice which he gave had the idea which I desire to express, in what I have to say, but his promise to his patient made it somewhat doubtful if his advice, under the circumstances, could be very effectively followed.

The influence of "mind over matter" has been recognized as fundamental in many systems of healing. This is no doubt founded largely upon the miracles of the Scriptures and upon those supernatural powers of Christ in healing the sick. The great Roman Catholic Church to this day claims the possession of miraculous powers. This is exercised through the saints and the apostles. Many instances of this might be mentioned. Perhaps the most notable illustration of this fact on this continent may be found at the Basilica of St. Anne de Beaupré, on the St. Lawrence river twenty miles below Quebec. It has been my pleasure to visit this sacred shrine, not in search of healing, however, but because of its historic interest. Hundreds of thousands of tourists visit it annually, many of whom make pious pilgrimages there having full faith in the miraculous power of the good Saint Ann—the reputed mother of the Virgin Mary—to cure them of all their diseases. That this is effective in many cases is evidenced by the fact that on entering the church, one sees thousands of crutches, walking sticks and spectacles, besides wheel chairs and many surgical appliances which have been left there by these pilgrims who went away believing they were cured of their infirmities and that they would have no further use for these articles. Many of these devices are given to the flames annually to make room for others that are constantly coming and have been coming during the two centuries and a half since the founding of this venerable church.

Then there is the Christian Science cult, which has attracted so

many adherents in recent years. One of its tenets is, that there is no such thing as disease and therefore medical help is scorned and "absent treatment" is extensively practiced *for a fee*. When any good results are achieved they must come, from my point of view, from the influence of the mind over the body and from no other cause.

The well known physician, Dr. Allen McLean Hamilton in speaking of this sect and of Mary Baker Eddy, its founder, in his recent work—"Recollections of an Alienist" (p. 317), says:

"Her teachings are merely a culmination, a crystallization, of similar systems that have been cropping up during the last half of the nineteenth century, under the leadership of such enthusiasts as Noyes, Cullis Simpson, Boardman, Quinby, and a score of others, who, influenced by a certain phase of idealistic philosophy, have denied the reality of matter and disease."

Dr. Hamilton further says, "The real usefulness of this sect is to heal by suggestion as has been done in all ages. At every European and Oriental shrine is a collection of votive offerings made by nervous invalids who have been made whole by psychic means. These things are mute witnesses of the power of the mind over the body. Perhaps some day the world generally will recognize the fact that a large number of so called organic and apparently incurable diseases are after all only functional." (Id. p. 319.)

It is interesting in this connection to note that in England in 1910 and 1911, a body of eminent members of the medical and of the clerical professions, made a careful investigation of this subject. They had many conferences and had the benefit of the testimony of many Christian Scientists, Emanuel Healers, Faith Curists and others who claimed to cure disease by spiritual agency. They had presented to them well attested evidence to show that "spiritual" or "mental" healing was useful in cases of alcoholism, sexual perversion and various other *functional* disorders. While they differed very much as to some phases of the subject and while they recognized the operation of the will and the efficacy of prayer, they were in substantial accord in expressing their belief "that the divine power is exercised in conformity with and through the operation of natural laws."

It was also their opinion that "faith" or "spiritual healing" does not differ from that dependent upon "suggestion;" that religious suggestion was more potent than any other kind; that "suggestion" was only available in functional disorders and that organic diseases were beyond its reach so far as a cure was to be expected, but they admitted that sometimes "suggestion would relieve pain or insomnia in organic cases."

So we have the judgment of these eminent physicians supported by that of many other distinguished and thoughtful men, that the mind may be made to exert a marked influence in curing the many functional disorders that flesh is heir to.

Cheerfulness which is one of the God given qualities of a well ordered mind must therefore have its place and an important place in correcting these disorders.

The physician is constantly in the presence of sickness and sorrow. He meets persons of all conditions of mind—the sad and the melancholy ones as well as those who are gladsome, bright and hopeful. He has many patients who are chronically out of sort. Neither he nor the patient can discern any organic trouble yet the patient easily imagines that he has all sorts of such troubles. If the physician tells him he has nothing the matter with him and to "cheer up" he will immediately suspect that his adviser is a failure at making a diagnosis and will at once dismiss him and try someone else.

I have heard of an instance of this kind where a woman who was the neighborhood gossiper, called in her physician who, after carefully observing her, was frank enough to tell her that there was nothing the matter with her—that all she needed was rest. She replied, "Oh! doctor I don't think you understand my case, just look at my tongue." He complied with the request and said, "Oh! that needs rest too." It is needless to add that his services to that patient were at an end.

Is it strange that with patients of this character to treat, so many physicians resort to giving *placebos* or bread pills? The patient is thus humored. No medicine would help him and when this fiction is resorted to he is being treated professionally if not ethically and this and time often works wonderful cures, as many doctors, when in a confidential mood, will readily admit.

Such a patient imagines he is ill but physically he is all right yet he is mentally sick, and the trained neurologist should be resorted to, to lift or educate him out of his mental condition. If he can get him in a cheerful mood and lead him to look on the bright side of his existence, without the aid of bread pills or other delusions, much will be gained. When a patient gets educated so he is more willing to pay his physician for advice than for medicine or what at least seems to be medicine, it will be just as well for the physician and in most cases much better for the patient. When a doctor is educated to diagnose a sluggish soul as readily as he does a sluggish liver and is prepared to furnish stimulants and cleansing to the one as well as to the other, much will be gained, for the patient at least.

With all the evidence we have to support the conclusion, it is not too much to say that cheerfulness in human kind has a salutary effect upon the system and is beneficial to health. Physicians as well as others generally recognize this. Laughter is one of the elements or at least one of the evidences of good cheer. Some unnamed poet or rather rhymster has truthfully said:

"Laughter! 'tis the poor man's plaster,
Covering up each sad disaster.
Laughing, he forgets his troubles,
Which, though real, seem but bubbles.
Laughter! 'tis a seal of Nature.
Laughter, whether loud or mute,
Tells the human kind from brute.
Laughter! 'tis hope's living voice,
Bidding us make a choice,
And to cull from thorny bowers,
Leaving thorns and taking flowers."

An old time philosopher advises us to "Laugh and grow fat." A well known example of the efficacy of this advice is found in ex-President Taft who is one of the best laughers and one of the most cheerful and good natured of men in the country. He even has to be very strict in his diet to relieve his otherwise too great and too uncomfortable amount of avoirdupois, and he does this with great success.

An eminent physician in speaking of the physical benefits of

laughter said many years ago: "There is not the remotest inlet of the minute blood vessels of the human body, that does not feel some wavelet from the convulsion occasioned by good hearty laughter. The blood circulates more readily at such times conveying a healthy invigoration to all the organs of the body, as it visits them on its particularly mystic journey. And thus it is that a good laugh tends to lengthen a man's life by conveying, as it does, a new and a distinct stimulus to the vital forces. On the other hand the habit of yielding to and fostering sadness of heart, embitters and shortens the days."

The statement that good cheer promotes good health has almost become axiomatic. It may be found asserted in one form or another by many writers.

Addison says: "Cheerfulness is the best promoter of health. Repinings and murmurings of the heart give imperceptible strokes to those delicate fibers of which the vital parts are composed, and wear out the machine. Cheerfulness is as friendly to the mind as to the body."

Lord Bacon says: "To be free-minded and cheerfully disposed at hours of meat and sleep and exercise is one of the best precepts of long lasting."

Shakespeare says: "A light heart lives long."

Sterne says: "I live in a constant endeavor to fence against the infirmities of ill health, and other evils of life, by mirth; being firmly persuaded that every time a man smiles, but much more when he laughs, he adds something to his fragment of life."

Haliburton says: "Cheerfulness is health; melancholy is disease."

Carlyle says: "Give us the man who sings at his work! Be his occupation what it may be, he is equal to any of those who follow the same pursuit in silent sullenness. He will do more in the same time—he will do it better—he will persevere longer. One is scarcely sensible of fatigue whilst he marches to music. . . . Wondrous is the strength of cheerfulness, altogether past calculation its powers of endurance."

Southey tells of a Spaniard who always put on his spectacles when about to eat cherries, that they might look bigger and more tempting. "In like manner," says Southey, "I make the most of

my enjoyments; and though I do not cast my eyes away from my troubles, I pack them in as little compass as I can for myself, and never let them annoy others."

Charles Lamb said: "A laugh is worth a hundred groans any minute."

David Hume used to say that "a disposition to look upon the bright side of things was better than an income of five thousand pounds a year."

Bob Burdette used to lecture on "The good medicine of a merry heart."

Dr. Hall, quite eminent as a physician, wrote a valuable book of health maxims giving it the quaint title of "Fun Better Than Physic."

Peter Pindar (John Wolcot) in his expostulatory Odes, says:

> "Care to our coffin adds a nail, no doubt;
> And every grin, so merry, draws one out."

When questioned as to the secret of his marvelous youthfulness in his eightieth year Dr. Oliver Wendell Holmes—who lived to be eighty-five—replied that "it was due chiefly to a cheerful disposition and invariable contentment in every period of my life, with what I was . . . It is restlessness, . . . discontent and disquietude that makes us grow old prematurely by carving wrinkles in our faces. Wrinkles do not appear on faces that have constantly smiled. Smiling is the best possible massage. Contentment is the fountain of youth."

It was the same revered physician who facetiously said: "I firmly believe that if the whole *materia medica* could be sunk to the bottom of the sea, it would be all the better for mankind and all the worse for the sea."

And it was Dr. Osler who also believed that good cheer was a material aid to good health who said fifty years later "that he is the best doctor who best knows the worthlessness of drugs."

Our good friend, Dr. J. Montgomery Mosher, attending specialist in mental diseases in the Albany Hospital said in a recently published paper on "The Treatment of Mental Diseases in a General Hospital": "To ascribe the good results of treatment to the efficiency of the nurses may seem a trite comment; but

the question of nursing is much more vital than that of buildings or of drugs."

General Nelson A. Miles in his recent book—"Serving the Republic," says: "that a wit was worth more to a company of soldiers than a doctor and a band of music more than a hospital."

Lincoln said: "I want it said of me when I die that I always plucked a thistle and planted a flower where I thought a flower would grow."

I might continue quotations along this line without limit from many other men, distinguished in literature and in professional and public life. They all tend to show that the philosophy of Solomon which I mentioned at the outset that "a merry heart doeth good like a medicine, but a broken spirit dryeth the bones" has found lodgment in the hearts of many generations and has not only become the settled conviction of every age since his time but is just as potent and valuable now as ever.

The man is to be congratulated who not only believes that cheerfulness is conducive to health and that melancholy is destructive of it, but who has the constitutional habit of always looking upon the bright side of things, no matter how dark the other side may be.

I have heard of an ignorant but honest man who had two sons, who from their infancy had been quarrelsome, profane and thievish. They had been repeatedly detected in petty crimes and had been imprisoned several times for short terms. They finally committed a burglary, were tried, convicted and sentenced to state's prison for five years. An old acquaintance called on the father to condole with him and to express his sympathy for the misfortune which had come to the boys. "Well," said the father after reflection, "I don't know but what they are about as well off where they are—there is one thing about it any way—when it comes night you know where them boys be."

Dr. Richmond, the president of Union University, once related to me an incident concerning his dear old Scotch father who lived much beyond the scriptural allotted time of three score years and ten, which showed that he had the quality of making the best of misfortunes. On one occasion when Dr. Richmond

visited him he found him confined to the house suffering from a severe attack of the gout in both feet and unable to walk. He was sitting in a chair with each foot bandaged and resting on another chair and suffering intense agony—Dr. Richmond at once expressed his deepest and most affectionate sympathy. His father said in his rich and delightful Scotch brogue, "Oh, well, it micht a been wor." "I don't see how anything could possibly be much worse," said the doctor, "than to be disabled in both feet and unable to stir." "Well, I micht a had four feet," replied his father.

Perhaps the most prominent illustration of the power of mirth, to relieve from anxiety and care, is found in the case of President Lincoln during the Civil War. He had a keen sense of humor. He told many stories—not for the sake of telling them but always to illustrate an idea or to impress a truth and they were always witty, pithy and to the point. When he was borne down with the great burdens and responsibilities of the war, when his brow became furrowed with wrinkles and his eyes sunken with sadness he was still hopeful and his shining example taught all his countrymen to look on the bright side during the darkest hours of his country's calamity and peril. Repeatedly during those heart sickening years did he call to the attention of his cabinet, during their discussion of public questions, some of the latest things written by Artemas Ward or Petroleum V. Nasby, two of the best known humorists of that day. When taken to task for this disposition on the part of the president as being inconsistent with proper regard for the country's welfare in the hour of its sore trial he replied with great fervor: "You can not be more anxious than I am constantly; and I say to you now that if it were not for this occasional vent I should die."

As was said by Wayne Whipple in his Story Life of Lincoln: "This saving sense of humor was like daily dew to the drooping spirits of the careworn president, and its sustaining freshness must have had an inestimable influence in the final preservation of the union."

There is no profession or calling where cheerfulness is a better asset or more essential to success than in the one you are seeking to enter. While it is valuable to all men it is essentially

so to the physician. If you do not possess it as a God given birthright; if it was not born in you, how are you to acquire it. It is undoubtedly true that many came into being under a weeping planet and that their melancholy may be traced to physical causes that existed long before they saw the light of day. It is equally true that there are other persons, "the favorites of fortune and the darlings of nature" who were born to be cheerful and whose bountiful and beneficent souls sparkle in their eyes and radiate through their smiles. How then are the melancholy ones to assist nature in working a transformation of their characters? How is the smileless man to become a good laugher; the melancholy man a cheerful one; the selfish man a sympathetic happy one and the fretful man with a chronic disposition to "the blues," so he will look upon the bright instead of the dark side of things?

It is easier to ask these questions than to answer them, and possibly the process may be one of slow development. The more permanent a thing is the longer time does it take for maturity. You can grow lettuce in six weeks but it will wither in six hours. The stately oak, however, requires fifty years to mature and thereafter its majestic branches will wave in the breeze for centuries. So in our lives, the best and most enduring things ripen slowly, but they are the grandest in their results and give us the widest range of happiness. No person can achieve this quality unless he desires it. If a person wills to rake the cobwebs of melancholy out of his heart and to brighten up, in nine cases out of ten he will succeed. If he would work a thorough reform in this respect he must be careful of the food he gives his mind and cautious in his associations with the gloomy and the sad. He should bear in mind that cheerfulness begets cheerfulness and that laughter is catching. The physician of all men should know this. When he goes into a sick room he should not go in as though he were going to a funeral; he should rather have a smile upon his face and good cheer in his heart, he should be gentle and sympathetic so that his very presence will bring hope and confidence to his patients. If they come to see him during office hours, he should be careful not to have his office opposite an undertaker's shop or near a church

where funerals are frequent; he should have no skeletons or anatomical specimens or pictures of surgical operations in his waiting rooms but have them ornamented with those things only which are adapted to bring delight and sunshine to the hearts of those who are seeking his aid.

In this way—in his person and in his surroundings—he will do much to get his patients in a state of mind where good cheer and hopefulness will predominate and where these qualities—mind acting upon matter—will be of substantial aid to whatever else he may do for them, by medicine or treatment of whatever sort, in relieving them of their afflictions whether real or imaginary.

May I express the hope that all of us, if we do not now have them, will come to possess these good qualities as a part of our natures, not only for the benefit we will individually receive therefrom, but for the good cheer and pleasure we may impart to others by bringing brightness into their lives. It will be better for us, for our families, for our patients, if we are physicians, and for the world.

Good cheer is like the chicken pox or the measles in one respect at least. It is contagious. May it become epidemic and may each of us have our part in spreading the germ.

THE MENTAL NURSE.

An Address, given at the Graduation Exercises of the Butler Hospital Training School for Nurses, Providence, R. I., June 5, 1917.

By J. MONTGOMERY MOSHER, M. D.,

Attending Specialist in Mental Diseases, Albany Hospital, Albany, N. Y.

One hundred years ago an eminent divine, Dr. Samuel Miller, writing the life of Jonathan Edwards, acknowledged the debt of his generation to the achievements of persons "eminent for their talents, their intellectual culture and their pure and elevated virtue." Beyond the moral obligation of commemorating the worthies of the past, he found a present gain in cherishing the benefits they confer upon posterity, especially when "their eminence is of such a peculiar character as to present an example adapted not to dazzle, but to instruct, to guide and to emulate."

Dr. Miller further commented upon the difficulties in estimating at their true value the leaders of thought during the period of their activities, for every step in the progress of human interests has been promoted by some superior intelligence, with clear vision and definite aim, either far in advance of contemporaneous thought, or with penetration into the course of events.

This is true of the history of nursing. Its beginnings date from the pioneer work of Dorothea Lynde Dix and Florence Nightingale. Both were aroused by the casual observation of cruelties and abuses, and each responded to the call upon sympathy and charity, with vigor and singleness of purpose, to promote reforms, which in effect and permanence, have been said to complete the transition from savagery to civilization. It may be doubted that either realized the remote results of what must have seemed an effort to establish a code of simple decency in the care of the afflicted, and that, from the appeal to meet the ravages of disease with proper care, would arise the principles of prevention and treatment universally accepted to-day. Yet the experiment of a half century ago has become established custom, and the privileges and rights of the individual, upon which the whole justification of nursing rests, are regarded as of paramount concern by the State, and as vital to the safety of nations.

The lives of Miss Dix and Miss Nightingale remind us in what diverse ways purposes are attained. Natives of widely separated countries, born and reared in different spheres of life, one in hardship and privation, the other in luxury; unlike in temperament, Miss Dix austere, exacting; Miss Nightingale, gentle; there grew in each a strong sense of pity and justice. The characters of these two women and the circumstances which attracted their thought and aroused their energy should be studied by all who contemplate the practice of nursing, for every nurse may profit by the inspiration gained from knowledge of their "talents, their intellectual culture and their pure and elevated virtue."

Although their great purpose had its inception at the same time, Miss Dix was the elder. Her early years were regulated by puritanical sternness and she afterward said she "never knew childhood." Her mother's premature death left her the responsibility of the care, while yet a child, of two younger brothers.

She was lonely, self-repressed and always in poor health. Pulmonary symptoms were manifest when she was twenty-two years of age, but she seems to have been one of those unusual characters who conquer disease by force of will and by the inspiration and the success of self-imposed duty. The record is that of a determined, self-disciplined young woman, who accepted responsibilities, met them in her own way and yielded to intuitive impulses. The strongest element in her character, noted as early as character shows its form or strength, was sympathy for the sick and unfortunate.

The contrast between the environment of Miss Dix and that of Miss Nightingale, in the light of subsequent events, is extraordinary. Miss Nightingale was fostered in a beautiful rural English home, the refinements and traditions of which are not excelled in any other established social system. She was highly educated and was delicate in sensibilities and in tastes. At seventeen, when Miss Dix, in the austere New England house of her grandmother, sought relief for the pent-up energies of her repressed activities in teaching the children of the poor, Miss Nightingale was an accomplished and attractive young woman. But at this time, indifferent to the charms of a lively and refined society, she became interested in the destitute and unfortunate of the parish. She prepared and distributed comforts for the poor, and engaged in "study of sick nursing," probably in a desultory way, for there was no established practice or theory beyond the little known work of Pastor Fliedner of Kaiserswerth.

And then by accident occurred those strange contemporaneous events which were destined to revolutionize the care of the sick and to modify the statecraft of two continents.

On a Sunday afternoon in March, 1841, Miss Dix visited the Home of Correction in Boston to assist in divine service. Her attention was drawn to an insane person confined in a cell and inhumanly neglected. She was aroused in an instant. She inquired into the care of persons of this class, and then began the campaign of forty years which resulted in the founding or enlarging of more than thirty State institutions for the proper custody and treatment of the insane. She became an acknowledged power, and carried her work into European countries with

equally beneficial effect. In his outline of her career Dr. Page says, "It is impossible to estimate how many men and women, suffering mental disease, she extricated or preserved from public jails and private pens, or how many others enjoyed release or exemption from galling chains and other cruel devices for restraint as a result of her humanitarian efforts." Her part in the foundation of the Butler Hospital illustrates her methods. Mr. Nicholas Brown had bequeathed thirty thousand dollars to establish the institution. Armed with the knowledge of many deplorable cases in Rhode Island, Miss Dix, with characteristic directness, placed the facts before Mr. Cyrus Butler, and obtained from him the additional gift of forty thousand dollars to ensure the erection of the buildings. Her name is thus indelibly written upon the records of this hospital as one of three to whom are to be ascribed the high purpose of science and service always characteristic of its administration.

At almost the same time that Miss Dix was aroused by the cruelty she observed in the jail in Boston, Miss Nightingale, by a curious coincidence, witnessed the deplorable condition of the hospitals of the cities of Great Britain. She saw the nursing "in the hands of the coarsest type of women, not only untrained, but callous in feeling and often grossly immoral. There was little to counteract their baneful influence, and the atmosphere of institutions which, as the abodes of the sick and dying, had special need of spiritual and elevating influences, was of a degrading character." She prepared herself by study at Kaiserswerth, and set about the correction of these appalling evils. Then followed the Crimean war, and, defying tradition, she provided respectable women for the care of sick and wounded soldiers. From this arose the calling of nursing as it is understood to-day.

Thus under widely varying conditions the same truth was brought into recognition by the keen perception and indomitable purpose of these two women. The demand of Miss Dix that the insane be properly treated is only to be met by the application of the principles of nursing established by Miss Nightingale.

From the standpoint of to-day, it appears incredible that a half-century of modern civilization has been needed to arouse compassion for suffering and a generation more to establish practical

methods of relief. The line of demarcation between mental and physical affections is growing less distinct, and the unity of disease is an accepted fact, for all sickness disturbs both mind and body. Science establishes the more accurate groups of local and general, or constitutional, diseases. The former belong to the domain of surgery and are often relieved by the removal of offending structures; the latter are essentially medical, to be met and overcome by measures conserving the vitality of the patient. The patient with an infectious disease, acute or chronic, presents pronounced derangement of function: temperature, circulation, respiration, digestion, elimination,—each requires attention and care. These abnormal conditions are largely the indication of altered nervous action in which the mind participates. The so-called mental disease is merely an aggravation of one set of symptoms which preponderate and, because of obtrusiveness, demand special consideration. In either case the means of cure lies in the restoration of normal function, for which the application of intelligent, educated nursing is the most potent agent.

The outward and visible evidence given by the Butler Hospital has long been the sign of inward grace in the humane and liberal assumption of a great duty. The records of its training school from year to year reveal the evolution of this broad conception of the universal qualification needed by the nurse in every branch of service. It is personified in your Medical Superintendent, who has been faithful to the sacred obligation assumed by the physician when he accepts his diploma—the conservation of the individual. In other walks of life, where great numbers are under direction, as in the army and in the industries, human beings are moved in the mass; in a large hospital, efficiency is attained, not by general orders, but by the patient, judicious, often wearisome and tedious analysis and consideration of personal characteristics. Those who urge to-day the refinements of medical practice in a hospital for the insane are apt to forget and can hardly realize how difficult the road which has been traveled, and how great the obstacles which have been overcome in a few years. Within the memory of those not yet aged, the inmates were regarded as a collection of curiosities to be exhibited on certain afternoons of the week to a long procession of morbidly minded visitors; a

thousand sick people were divided into a half dozen groups determined by behavior; active manifestations of turbulence, irrespective of their origin, were quieted by stupefying drugs; isolation from loved ones was regarded as an essential therapeutic measure, and submission to strangers was accepted as the criterion of a more or less healthy state of mind. Into such a mess as this Dr. Blumer injected the spirit of reform, accentuated by the vigor and enthusiasm of youth, and his thirty annual reports reveal the persistence and unwavering fidelity with which he has advanced his ideals toward the goal.

"Insanity is disease of the brain," was the thesis of his first public document. He then advocated, from year to year, the successive steps necessary to affirm this truth:

abolition of mechanical restraint, increased liberty, occupation, school for patients; privacy (as protection from public curiosity);

substitution of nurses for attendants, uniforms for nurses; women nurses in men's wards;

adoption of general hospital methods, and abandonment of terms "asylum," "lunatic" and "insane;"

school for nurses, at first optional and then obligatory, with preference for graduates;

preliminary examinations for training school candidates;

laboratory and clinical investigation;

elaboration of clinical teaching, with fewer didactic lectures;

exchange of nurses with those of a general hospital.

These were significant of a new era. In 1900 Dr. Blumer expressed in his first report at Butler Hospital his purpose to "inculcate the virtue of respect for the patient as such," and the following years have witnessed the development of the school to its present high position. Many of his epigrams might well be taken to heart. He has emphasized "the supreme importance of the mental aspects of all professional nursing," and the need to "approximate, if not to identify, the curriculum and methods of the school to and with those of the schools of general hospitals, with the object of giving its pupils an all-round training." He has also urged "the desirability of placing the technical education of nurses upon a broader basis of general culture.'

Thus have the achievements of Miss Dix and Miss Nightingale,

conceived in "talents, virtue and culture," taken their place in history, as the heralds of that great triumph of humanity which marks the transition from mere custody of the insane to scientific treatment of mental disease.

Scientific medicine is making great strides in the protection of health, particularly in specific medication as represented by antitoxins and vaccines, and in other means of prophylaxis, sought to be attained by popular education. But the number of sick people continues distressingly large, and the time is still far distant when universal knowledge as to the causes of disease will anticipate its appearance.

The layman, engrossed in business or profession requiring his whole energy is not able to gain special knowledge of the laws of correct living to which the physician devotes his life. He cannot consider and act intelligently upon the perplexities of public sanitation, heredity, exercise and rest, diet, over-application, worry, anxiety, and the multitude of problems which enter into the question of adjustment of personal resources and adaptation. Until the blessings of Utopia are vouchsafed there will be sickness and distress, and much of this will be found to have its origin in abuse of the nervous system, the most potent underlying factor in diseases even of concededly physical character. Outspoken delirium in pneumonia and typhoid fever, prolonged convalescence with mental depression following these and similar diseases, hysterical and confusional states following surgical operations, all suggest antecedent nervous strain and exhaustion. A most competent surgeon attributed an attack of appendicitis to worry!

The neglect of mental complications offers a serious problem to be charged none the less to the lack of training of physicians than to that of nurses. This defect in education must be supplied before the two intimately related callings may be said to have fulfilled their obligation to their patients. In this effort to meet the want the schools of general hospitals have been less energetic than those of hospitals for mental disease. There is little instruction in the origin of mental symptoms and therapeutic measures are confined to routine administration of a few drugs, sedative in character, occasionally and fortunately helpful in meeting a transient complication, but faulty in theory and

actually harmful if persistently used. In contrast with this is the effort in mental hospitals to discover the underlying physical defect, in the expectation that the symptoms will disappear when the source is removed and normal function re-established.

This defect in the general hospital curriculum is assumed to be met by a mysterious quality called "tact," with which the nurse is supposed to be inherently charged, in varying proportions. Thus the most important qualification of the nurse, rapidity and accuracy of interpretation, is accepted as beyond the reach of education, and success or failure is predicated upon the possession of a natural gift, or want of it. In the ultimate analysis tact is knowledge of the mental manifestations of disease and of the personality of the patient, and these are discussed and elaborated in the training given in the mental hospital. The ready appreciation of what is right and proper at a given instant is not regarded there as intuition, but as definite knowledge which may be imparted by training and acquired by experience.

The most striking and practically universal feature of morbid nervous action is periodicity. Whatever the manifestation may be, from simple querulousness to active delirium, its intensity varies as the moments or hours pass. An attempt at management or the administration of treatment when the patient through fear or agitation cannot accept it, aggravates the symptoms and creates hostility not easily overcome. This is a mistake the mental nurse does not make. The averted glance, inattention, or more correctly, diverted attention, suggests at once the presence of hallucinations, often followed by some impulsive or dangerous act. The mental nurse recognizes the condition and anticipates the danger. Depression, or gloom, with occasional fragmentary remarks of self-abasement suggests to the mental nurse the possibility of attempts at suicide. Momentary periods of confusion and a dazed or bewildered state of mind in childbed lead the mental nurse to precautions against sudden danger to the mother or infant. States of depression following periods of excitement, as of delirium, of fever or of alcoholism, are well known to mental nurses as potentially developmental of sudden activities, which, when not prevented, terminate in casualties and death.

The pathological history of old age is scarred with the arte-

facts of fallible therapeusis. Longevity, the prize of right-living, is too often penalized by the want of comprehension of its conditions. Forgetfulness, and the fanciful restoration of the past, are misapprehended, and the aged, who surround themselves with the imaginary environment of remote existence, are driven to despair and desperation by misguided attempts to correct the erroneous conception of a mind which has lost its power of adaptation and adjustment. Attacks of maniacal excitement, delirium and confusion occurring in the aged, provoked by opposition and intrusion upon the established habits of a long life, may not only be relieved but prevented by the skill of the mental nurse, who has learned as none other the value of honesty, not only in the relief of delusions, but in the increase of comfort of one laboring under the stress of some great fear. Acquiescence in absurd and morbid beliefs not only lends support, but adds to the confusion of the sufferer, who is reassured by the simple statement that he is misled by the morbid action of the brain. The quiet remark of incredulity is often sufficient, and of all nurses, the mental nurse alone has knowledge of this simple truth.

Attendance upon a mental patient demands application of the same principles as upon any other case of disease. In the treatment of acute cases the general manipulations are to be applied to secure rest and comfort for the patient, and the elimination of poisons.

The general nurse gives diet, medicines and hydrotherapy, at the appointed time, so that regularity marks the day. The same method for restoring normal function should be the underlying effort in every acute mental case. The mental nurse varies the routine so far as expediency dictates and, mindful of the moods of the patient, ignores the clock and avoids antagonism and the ensuing exaggeration of symptoms. If judicious adaptation to the intervals between paroxysms be followed, satisfactory results ensue, and the end justifies the modified procedure. In this lies the distinction between a respectful recognition of the mental state of the patient, and a hard and fast rule of thumb which sees only disease and ignores personality. If this be tact, in the words of Patrick Henry, "Make the most of it!"

Mental training thus affords opportunity for a glimpse of the mind of the patient, and the mental nurse has received a practical

gift not vouchsafed to others where experience has been confined to the material manifestations of disease. The mysteries of personality and character are rarely revealed; only when mental operations are distorted by disease is there gained a substantial view of the underlying purposes of action. It is possible then to place one's self in the position of the patient and to share or ease the miseries of uncontrolled ideas and fears. Of all the medical writers who have ventured into this obscure field that "brave old knight of Norwich," Dr. Thomas Browne, in the quaint phraseology of four centuries ago, expresses the ideals which may be taken as the gospel of the physician and of the nurse:

"It is a barbarous part of inhumanity to add unto any afflicted parties misery, or indeavour to multiply in any man a passion whose simple nature is already above his patience. This was the greatest affliction of Job, and those oblique expostulations of his Friends a deeper injury than the down-right blows of the Devil. It is not the tears of our own eyes only, but of our friends also, that do exhaust the current of our sorrows; which, falling into many streams, runs more peaceably, and is contented with a narrower channel. It is an act within the power of charity, to translate a passion out of one breast into another, and to divide a sorrow almost out of itself; for an affliction, like a dimension, may be so divided, as, if not indivisible, at least to become insensible. Now with my friend I desire not to share or participate, but to engross his sorrows; that, by making them my own, I may more easily discuss them; for in mine own reason, and within my self, I can command that which I cannot intreat without my self, and within the circle of another."

The great apostle of trained nursing in America, Dr. Edward Cowles, finds that mental nursing is the widest domain in that bodily ills are simply a "multiplicity of various forms of interference with the mental life, which unifies all experience." Your superintendent glorifies the "psychiatric attitude," in which the nurse establishes the "foundation of professional qualifications upon patience and the Christian graces." The nurse so trained ministers to the "human personality of the patient and to bodily ills as incidental to the larger interest and duty." This is the type of nurse with which the Butler Hospital blesses Providence.

Correspondence

THE PASSING OF A GREAT MAN— PROFESSOR DR. THEODORE KOCHER.

The Eminent Surgeon of Berne, Switzerland.

On July 27th last the medical profession throughout the world suffered a great and irreparable loss in the death of Professor Dr. Theodore Kocher, the famous chief surgeon of the "Inselspital," Berne, Switzerland, and professor at the medical faculty of the Berne University—to which posts he received a call by the Government of the Canton of Berne in April, 1872.

Professor Kocher's many pupils have ever admired him as the greatest living surgeon and on two occasions has the medical world in general also paid him this compliment. First in the year 1904 when the International Surgical Society was founded, the meeting of Surgeon Delegates elected Professor Kocher Chairman of the first International Congress of Surgeons at Brussels. On the other occasion, in the year 1910, he was awarded the Noble Prize for his remarkable achievements in surgery.

His specialty was goitre and he has been generally known as an exceptionally successful surgeon for this complaint. This formerly most difficult operation has been improved and simplified by him and some of the foremost physicians are not reluctant to acknowledge that they are operating after Kocher's method.

The first successes brought him patients from all directions of the Globe and noble families, including the Imperial Russian Court, called him frequently to their aid. Numerous brilliant offers reached him from foreign countries, but he refused them all, in order to devote his science and activity to the University of his native town. In 1912 he celebrated the fortieth anniversary of his Professorship in midst an assembly of medical celebrities who had especially come to Berne to do him homage on that day.

On the occasion of the Surgical Congress of 1910, he surprised his audience—which consisted of over 1,200 surgeons from various parts of Europe—when he casually mentioned that

he was basing his facts upon some 4,000 operations he had performed for goitre. And humanity is not only indebted to this talented man for the discoveries he made in this field, but also for the many lessons he drew from his experiences and observations in other and still more complicated diseases.

Everybody is acquainted with the phenomenal effects of Röntgen's invention in cases of broken bones. Professor Kocher's experience and science enabled him to write on the treatment of fractures even before Röntgen and there was nothing to be altered or added in his treatise of this subject. Professor Kocher's technic has led to perfect success in stomach and intestinal surgery; and new methods which he introduced are now employed in cases of epilepsy. He also facilitated the diagnosis of injuries to the brain and spine and intestinal ruptures are operated after his directions.

Professor Kocher is therefore universally acclaimed as a man to whom the world is indebted for discoveries and progress in almost every section of surgery. He was a man who was never precipitate in his diagnosis of a case; he knew the value of careful and repeated observation and insisted upon absolute certainty in each individual case.

It consequently rarely happened that a case of illness which was brought to his attention could not be explained and his patients felt immediately that they were in the care of a man from whom they would receive the maximum of human help.

Professor Kocher regarded his profession as his very life and his holidays were invariably devoted to theoretical work. He remained a perpetual wonder to his assistants and his pupils, who could not always realize how this man could find his life's satisfaction in constant hard work. He was not only an instructor in surgery, but he implanted into his students that sense of duty which sacrifices all to the cause of the patient. He refused in his clinic to distinguish between important and unimportant matters, for every detail held some importance for him and he never failed to impress this upon his pupils.

While many a man would have retired long ago, Professor Kocher remained active to the very last. At the age of 76, shortly before he died, he lectured and operated with youthful

vigor and those who knew him had to admit that he displayed the same unbounding energy at the close of his career as he did when he started his work in the Swiss Capital. Professor Kocher kept not only pace with the progress of science and time, but he was even ahead.

Switzerland mourns him as one of her most brilliant sons and the medical profession in general and many individuals in foreign lands who have received help from this great surgeon will pay a grateful tribute to his memory.

MARIE WIDMER.

Editorial

> Of medicine too he was fond of talking, and with those of its practitioners whom he most esteemed,—with Corvisart at Paris, and with Antonomarchi at St. Helena. "Believe me," he said to the last, "we had better leave off all these remedies; life is a fortress which neither you nor I know anything about. Why throw obstacles in the way of its defense? Its own means are superior to all the apparatus of your laboratories. Corvisart candidly agreed with me that all your filthy mixtures are good for nothing. Medicine is a collection of uncertain prescriptions, the results of which, taken collectively, are more fatal than useful to mankind. Water, air and cleanliness are the chief articles in my pharmacopoeia."
>
> *Napoleon; or, The Man of the World.* EMERSON.

✢ ✢ ✢

"The Originator of the United States Pharmacopoeia."

Few of the workers in drugs who refer every day to the large technical volume which guides their manipulations have had their attention directed to the history and evolution of this extraordinary work. It is assumed that, like Topsy, it "just grew," as edition after edition noted advances and additions in the rapidly increasing number of remedies. And yet its origin was of the humblest, and it sprang from the per-

plexities of physicians of a century ago, who, practicing in isolated and widely separated communities, felt the need of interchange of thought and experience and adoption of some common standards of belief. A recently published biography not only describes the beginnings of the Pharmacopoeia but sheds a vivid side-light upon the methods and lives of pioneer physicians which approached the romantic.*

This atavistic tribute "happened to be written" in a peculiar way. The grandson came accidentally upon the papers of the grandfather, comprising many letters he had received and none he had written. From this one-sided accumulation of material he has been able to construct not only the personal characteristics of the hero of his story but to describe his contemporaries from the evidence given by their own hands, and to picture the struggles and the difficulties of a pioneer civilization. The therapeutic resources of the rural physician were largely those suggested by his fertile brain, and common agreement was reached only by communication in letters carried from town to town by accessible messengers.

"The important results of the attendance [of Dr. Spalding] at the Harvard Medical School were: the best of instruction; and personal acquaintance with the three Professors." It appears that he twice "hired a chaise into which he hitched his horse" to make the journey from Cornish to Boston. He assisted his preceptor, Dr. Nathan Smith, in Cornish, and "made a horseback journey of 300 miles in Vermont, looking for a place to settle in practice." Of the physicians he met he describes one as "a Poor Galenist," another as "a good physician, but too dirty for a surgeon," a third as "very capable, but too fond of the cup;" and of the last he wrote with enthusiasm: "There is a man for you! Careful and scientific. Would that I could know about him from meeting him oftener." This sketchy per-

*_Dr. Lyman Spalding, the Originator of the United States Pharmacopoeia;_ Co-Laborer with Dr. Nathan Smith in the Founding of the Dartmouth Medical School and its First Chemical Lecture; President and Professor of Anatomy and Surgery of the College of Physicians and Surgeons of the Western District, at Fairfield, N. Y. By his Grandson, Dr. James Alfred Spalding. Boston: W. M. Leonard, Publisher, 1916.

sonal tone of the book is revealed throughout in letters from famous men and comments. Among them are Jenner, Shattuck, Waterhouse, Gerrish, Nathan Noyes, David Ramsay and others who were interested in vaccination. Their difficulties in obtaining, importing, and conveying the virus are revealed and their faith was unlimited. Perhaps this interchange of the remedy and the epistolary comments upon its uses and effects may be assumed as the demonstration of the need of a publication accessible to all. After this method had been carried on for years Dr. Spalding's ambition led him to prepare "Bills of Mortality," for distribution, which pointed toward a general agreement on nosology. The large number of letters describing cases furnishes a veritable clinical symposium, and when Dr. Spalding proposed in New York on January 6, 1917, the preparation of a "National Pharmacopoeia," the suggestion was well received and a committee was appointed. The reasons advanced by Dr. Spalding were: "Physicians were using different books in compounding their drugs, the names of those drugs varied everywhere, some drugs were inert, others were compounded on foreign standards, different textbooks were used in different medical schools of instruction, doses were unlike in various parts of the nation; in a word National Uniformity was imperative." The first edition was printed in Boston, December 15, 1820, ten months before the death of its originator.

A note upon this Life of Dr. Spalding would be incomplete without some reference to the many quaint comments upon the customs of his day and the strong individualities of his associates; yet space forbids more than casual excerpts from the rich and varied accumulation. Dr. Spalding met Physick and Rush in the Pennsylvania Hospital and enjoyed their clinical demonstrations. The former announced: "I go next to speak of strangulated Hernia, in which a high enema of tobacco is better than mere tobacco smoke." "In tapping," he said, "you may get water and you may get jelly!" Rush naturally emphasized the mental aspects of every case, and was attention to the impressions made upon the minds of his patients as promoting recovery. Dr. Spalding wrote of him: "His great forte is to prove everything by a string of analogies like Sancho Panza's Proverbs. He never

attempts fair and logical reasoning but supports his hypothesis with the idle talk of a Nurse, or of an Old Woman, or of a Sea Captain or of a Lady in Philadelphia, or of a Patient in the Hospital. Notwithstanding which, he is the ablest practitioner that I have ever met with, he so exactly points out the Seat and the State of the Disease, and attacks it with such Buonapartean Skill as to vanquish it at once."

Dr. Kollock, representing the South in the preparation of the Pharmacopoeia made the trite observation that "it is difficult to keep alive an efficient zeal in medical Associations except in the immediate vicinity of Medical Schools, which furnish continued excitement." This seems to be true to-day. It was so with Fairfield, the rural institution in Herkimer County which was almost a forerunner of the Albany Medical College. When Dr. Spalding was invited to a professorship there in 1810, he was told that "There is no respectable surgeon in Albany. Nor any celebrated physician." The invitation appears to have been pressed under the hope that Dr. Spalding would settle in Albany, and so promote his own convenience and that of the School. This did not meet with his acceptance, though no reason is given. Perhaps he anticipated the vagaries of medical friendship which were later expressed to him by Samuel L. Mitchill, when he contemplated removal to New York: "As to success in N. Y., there can be little doubt, that with patience and perseverance you will succeed. But I think you will find it tedious 'to beat your way,' as the sailors term it, against wind and tide. You will desire, of course, to figure in genteel circles, and to associate with the middle and higher classes of society. The families of these orders are, you know, pretty much bespoke already, and it is chiefly by a death, or removal, or a quarrel, that a new physician can gain admission, and knots of medical men are formed, who throw into each other's hands as much of the consultation business as they can." It would appear that customs have not changed, and that medical ethics are much the same now as a century ago. Yet there should have been opportunity in New York, for Dr. Spalding was asked to report on the condition of Beekman Street, for the sake of the public health, and he found: "Offal of fish and fowl, beef bones, barrels of shav-

ings, potato peelings, decayed apples, corn cobs, crab and clam shells, chimney soot, pea pods, cellar rubbish, six loads of cow manure standing in the roadway for 24 hours, bricks, mortar, a dead hog, with a dead cat and hen lying alongside." Life may have been pleasanter there than at Fairfield, for when his honorarium is questioned, Dr. Spalding indignantly inquires: "What would you ask for one half of your dwelling house to become an Anatomical Theatre for three months, with 14 subjects to dissect and 20 students running in and out?"

These are a few extracts from this golden treasury of antique practice and theory.

Public Health

Edited by Arthur Sautter, M. D.

Department of Public Safety, Bureau of Health, Albany, N. Y.

Bureau of Vital Statistics.

Compiled By William F. Fullgraff, Registrar.

Deaths for Month of August, 1917.

Consumption	18	Broncho Pneumonia	0
Typhoid Fever	1	Bright's Disease	5
Scarlet Fever	0	Apoplexy	8
Measles	0	Cancer	4
Whooping Cough	0	Accidents and Violence	6
Diphtheria and Croup	0	Deaths under 1 year	19
Grippe	0	Deaths over 70 years	29
Diarrheal Diseases	15	Death rate	13.59
Pneumonia	2	Death rate less non-residents	11.45

Deaths in Institutions.

	Non Res.	Res.		Non Res.	Res.
Albany Hospital	9	6	Federation of Labor Camp.	1	0
Albany Hospital Camp.	1	2	Public Places	1	1
Albany County Hospital	0	2	Infants Home	1	0
Homeopathic Hospital	3	8	St. Margarets House	1	0
St. Peters Hospital	2	7			
Home for the Aged	2	2			
Hospital for Incurables.	2	1		23	36
Maternity Hospital	0	6	Births		188
Home for the Friendless	0	1	Still births		10

BUREAU OF COMMUNICABLE DISEASE

Cases reported during August, 1917.

Typhoid Fever	8	Whooping-cough	5
Scarlet Fever	2	Tuberculosis	33
Diphtheria and Croup	0	Anterior Poliomyelitis	1
Chickenpox	1	Ophthalmia Neonatorum	1
Smallpox	0		
Measles	8	Total	59

Number of days quarantine for scarlet fever:
Longest..... 34 Shortest..... 30 Average..... 33 8/12
Fumigations: Houses ..... 39 Rooms..... 195
Milk bottles disinfected 246

TUBERCULOSIS.

Nurses' Report.

Living cases on record August 1, 1917		774
Cases reported:		
By card	31	
Dead cases by certificate	3	34
Dead cases previously reported	15	
Dead cases not previously reported	3	
Died out of town	1	19
Living cases on record Sept. 1, 1917		789
Total tuberculosis death certificates		18

Non-resident deaths:

Albany Hospital Camp..	1	St. Peters Hospital ...	1
C. F. L. Pavilion	1	Homeopathic Hospital...	1
			4
		Resident deaths	14

Visits to Cases of Communicable Disease.

Tuberculosis	28	Visits to Physicians	5
Miscellaneous	28	Investigations	2

Bender Laboratory Report.

DIPHTHERIA.

Initial Positive	0	No growth	2
Initial Negative	129		
Release Positive	38	Total	216
Release Negative	47		

Sputum for Tuberculosis.

Positive	38	Negative	47
		Total	85

Widals.

Positive	10	Suspicious	8
Negative	24	Unsatisfactory	1
		Total	43
Wasserman Tests	135	Milk Analyses	152

Bureau of Nuisances.

Inspections	80	Sanitary	62
Plumbing	18		
Reinspections	84	Sanitary	53
Plumbing	31		

Hearings.

Cases heard before Health Officer	5

Class of Cases.

Manure	2	Drain	1
Stable	1	Privy vault	1

Disposition of Cases.

Abated	2	Reinspection	3

Bureau of Plumbing, Drainage and Ventilation.

Inspections	108	Houses tested	11
Old Houses	49	Blue or red	1
New Houses	59	Peppermint	2
Permits issued	74	Water test	8
Plumbing	63	Houses examined	19
Building	11	Re-examined	93
Plans submitted	16	Valid	12
Old Buildings	7	Without cause	7
New Buildings	9		

Dead Animal Report.

Horses removed	22	Cats removed	456
Dogs removed	155		

BUREAU OF MARKETS AND MILK.

Public Market inspections	13	Milk depots inspected	9
Lactometer readings	174	Milk houses inspected	36
Temperature readings	174	Milk cans inspected	906
Fat tests	86	Dairies inspected	36
Sediment tests	44	Cows examined	414
Chemical tests	37	Dairies quarantined	1
Bacterial counts	65	Complaints investigated	5
Stores inspected	58		

MISCELLANEOUS.

Cards posted for contagious disease	10	Postal card returns received from doctors	33
Cards removed	34	Inspections and reinspections	28
Notices served on schools	59	Employment certificates issued to children	23
Notices served on stores and factories	21	Vaccinations	38
Postal card returns sent to doctors	10	Cases assigned to health physicians	65
		Calls made	100

Garbage collected from 1st District	400 bbls.	2nd District	396 bbls.
Garbage collected from		3rd District	505 bbls.

Medical News

MEDICAL SERVICE OF THE ARMY AND NAVY.—Dr. HAROLD A. PECK (A. M. C. '16), who has just completed service in the Albany Hospital, has been commissioned first lieutenant in the Medical Reserve Corps, and has been assigned to duty in the Military hospital in Washington, D. C.

—Dr. HENRY B. GILLEN (A. M. C. '09), of Cohoes, N. Y., has received his commission as captain in the Medical Reserve Corps of the army and has been assigned to duty at Fort Benjamin Harrison, Ind.

—Dr. RAOUL A. HERBERT (A. M. C. '15), of Cohoes, N. Y., has received his commission as lieutenant in the Medical Reserve Corps, and has been assigned to duty at Fort Benjamin Harrison, Ind.

—Dr. JAMES H. MITCHELL (A. M. C. '12), of Cohoes, N. Y., has received his commission as lieutenant in the Medical Reserve Corps.

—Dr. HOWARD A. LOMAX (A. M. C. 1892), Captain in the Medical Reserve Corps, has been appointed chairman of the Medical Examining Board in Albany to take the place of Dr. J. Lewi Donhauser (A. M. C. '07), who has been ordered to Fortress Monroe.

—Dr. CLINTON B. HAWN (A. M. C. '06) and Dr. JOSEPH P. O'BRIEN (A. M. C. '98), together with Dr. EDWIN DRAPER, instructor in surgery in

the Albany Medical College, commissioned as first lieutenants, have been ordered to Newport, R. I., for members of the National Guard.

—Dr. Milliard F. Shafer (A. M. C. '03), of Cobleskill, N. Y., has been commissioned as first lieutenant in the Medical Reserve Corps and ordered to Fort Benjamin Harrison, Ind.

—Dr. Hamilton M. Southworth (A. M. C. '05), of Old Chatham, N. Y., has received his commission as first lieutenant in the Medical Reserve Corps and has been ordered for duty to Fort Benjamin Harrison, Ind.

—Dr. George A. Green (A. M. C. '12), of Mechanicville, N. Y., has been commissioned as lieutenant in the Medical Reserve Corps and has been assigned for instruction to Fort Benjamin Harrison, Ind.

—Dr. George W. Beebe (A. M. C. '07) of Johnstown, N. Y., has been commissioned as first lieutenant, and has been assigned for instruction to Fort Benjamin Harrison, Ind.

—Dr. Garrett M. Clowe (A. M. C. '13), of Schenectady, N. Y., has been commissioned as first lieutenant in the Medical Reserve Corps, and has been assigned for instruction to Fort Benjamin Harrison, Ind.

—Dr. Waldron A. Stearns (A. M. C. 1900), of Schenectady, N. Y., has been commissioned as first lieutenant in the Medical Reserve Corps, and has been assigned for instruction to Fort Benjamin Harrison, Ind.

—Dr. William B. McKeon (A. M. C. '15), of Troy, N. Y., has been commissioned as first lieutenant in the Medical Reserve Corps, and has been assigned for instruction to Fort Benjamin Harrison, Ind.

—Dr. Robert E. Plunkett (A. M. C. '13), of Whitehall, N. Y., has been commissioned as first lieutenant in the Medical Reserve Corps, and has been assigned for instruction to Fort Benjamin Harrison, Ind.

—Dr. Erastus Corning (A. M. C. '07), has been commissioned as captain in the Medical Reserve Corps, and has been assigned to duty at Tacoma Park, D. C.

—Dr. Floyd J. Atwell (A. M. C. '07), of Cooperstown, N. Y., has received his commission as first lieutenant in the Medical Reserve Corps.

—Dr. Milton Arnowitz (A. M. C. '17), has enlisted as chief medical officer of the Second Battalion of the Provisional Regiment, and has left for headquarters at New Paltz, N. Y.

—Dr. Arthur M. Dickinson (A. M. C. '15), who has been commissioned as first lieutenant in the Medical Reserve Corps and since July 20th has been under instruction in the Army Medical School in Washington, has arrived in England on his way to active service in France.

—Dr. Ira C. Whitehead, Jr. (A. M. C. '12), of Hoosick Falls, N. Y., whose commission as first lieutenant has been announced in the Annals, has arrived in France.

—Dr. Ray M. Eaton (A. M. C. '11), of North Adams, Mass., a lieutenant in the Medical Reserve Corps, has arrived in England on his way to France where he will take charge of an American field hospital. Dr. Eaton went to Europe soon after the outbreak of the war to serve for a year with the Allied armies in field service.

Personals.—Dr. Wallace J. C. Aubrey (A. M. C. '10), formerly in Albany, has removed to Cohoes, N. Y., where he has an office at 274 Remsen St.

—Dr. Roy L. Leak (A. M. C. '98), formerly superintendent of the Psychopathic Institute in Syracuse and professor of medical jurisprudence in the medical department of Syracuse University, has been appointed as medical director of the State Hospital for the Insane, Columbia, S. C.

—Dr. Charles H. Herrick (A. M. C. '93), has removed his office to 243 Hudson Ave., Albany, N. Y.

—Dr. Harry A. Van Loon (A. M. C. '10), has opened an office at 27 Dove St., Albany, N. Y.

—Dr. Clarence F. Graham, instructor in medicine in the Albany Medical College, publishes a paper on the "Clinical Laboratory in the Albany Hospital," which is profusely illustrated, in the Modern Hospital of September, 1917. This paper gives a description of the new work in clinical pathology at the hospital.

—Dr. N. A. Pashayan (A. M. C. '01), of Schenectady, N. Y., contributed to the discussion on the subject of epilepsy before the Section of Nervous and Mental Diseases at the last session of the American Association, as reported in the *Journal* of September 15, 1917.

—Dr. Hermon C. Gordinier (A. M. C. '86), contributes a paper on Digitalis in the Treatment of Auricular Fibrillation in the "Medical Record" of September 15, 1917.

—Dr. George C. Vogt (A. M. C. '17), recently interne in the Albany Hospital, has settled for practice in Endicott, N. Y.

Married.—Dr. J. Lewi Donhauser (A. M. C. '07), in active service as captain in the Officers' Reserve Corps, and Miss Eliza Rathbun Paige were married in Albany, N. Y., on September 8, 1917.

Died.—Dr. Rollin A. Kirkpatrick (A. M. C. '1898), died in the Samaritan Hospital at Troy, N. Y., July 28, 1917, from cerebral hemorrhage, aged 58.

Current Medical Literature

PATHOLOGY AND BACTERIOLOGY.

Edited by Ellis Kellert, M. D.

Military Sanitation in the Present War. By THORNDIKE SAVILLE, C. E. *American Journal of Public Health,* Vol. VII, No. 6, p. 527.

The author mentions the following as the two best books on sanitation which have as yet appeared as a result of experience in the present war. "Sanitation in War" by Major Lelean of the British Medical Corps, and "La Pratique de l'Hygiene en Campagne" by Andre Tournade of the French Sanitary Service School. His article is an abstract of the two volumes.

The French lay great stress upon the comfort of the soldier providing hot and cold water in the encampments and a hair dresser. Before a camp is established there should be a sanitary survey conducted by a doctor, an estimatoin of the capacity of the place and its proivsions for receiving men and horses and there should be adequate protection of the ground. Temporary latrines should be provided while the regulation latrine ditches are being made. Stagnant pools of urine or wash water should be prevented. All refuse is best disposed of by treatment with quicklime. Stable refuse is carted to at least a distance of a kilometre. Surface drains should be among the first permanencies of any camp. All water is to be sterilized. This is accomplished by hypochlorite of lime or permanganate of potash. The latter is not favored by the British.

The disposal of the dead presents a serious problem. Burial should not take place near habitations, sanitary structures or water courses. Common graves holding 100 bodies are used and in digging the trench it is necessary to provide easy access of air and circulation of ground water. All clothing is removed from the bodies and antiseptics are forbidden. A single row of bodies are placed in a ditch which measures 100 feet long, 11 feet wide and 5 feet deep. When burial becomes impossible, quicklime, 10% ferric sulphate, 1-20 cresol or formalin is used. Incineration is the best method and the sentiment against it is to be regretted.

In the temporary outposts and even in the field hospitals whitewash is used abundantly. For screens, linen cloth stretched on wooden frames and then whitewashed, is used. The addition of one to two grams of alum per litre facilitates the adhesion of the whitewash.

The common diseases are typhoid, diarrhea, dysentery, trench jaundice, cholera, typhus, directly contagious diseases and the venereal diseases.

Typhoid is better prevented by the French method of giving four

injections instead of two as in the British army. Only men in good health are inoculated. The French give 0.5 centigram aspirin one or two hours after injection, while the English give 15 grains calcium lactate just before and six hours after inoculation. Diarrhea and dysentery are brought about by long stationing of large numbers of troops in the same place, too much meat, green vegetables, careless removal of flannel belt or lying on damp ground.

The Germans have used anticholera vaccination and the French are to adopt it in the infected regions.

Typhus which is prevalent in the German and Austrian armies is spread by the body louse. For its suppression it is necessary to disinfect cantonments abandoned by the enemy, sterilize clothing and provide shower baths. Kerosene, benzene or equal parts of kerosene and olive oil rubbed on head and washed off in 24 hours is efficacious. Powders of 2% iodoform and creosote and 96% naphthelene will remove lice from clothing. The young are destroyed by smearing seams with mineral oil, 9 parts, soft soap 5 parts to water 1 part.

Venereal diseases increased during the war, infection occurring chiefly in the interior and at the depots. It is said that the equivalent of two army corps are continually incapacitated from these diseases.

Chloride of lime is made by adding 100 grams to a litre of water and then diluting to 10 times the volume. This antiseptic acts more strongly when heated and attacks metals. Corrosive sublimate is used one to one thousand and acts better when 2 grams of sea-salt per litre is added. Heavy coal tar oils are valuable in the urinals. After use by patient, all linen and bed clothing are sterilized by steam or liquids. For dejecta, prolonged contact with 5% copper sulphate, 2% creosol or 4% chloride of lime is used.

For field disinfection the British use a portable Thresh steam sterilizer which will hold 60 blankets at 100° C. Liquor cresoli Saponatus is the standard disinfectant used in the field, but carbolic acid and formalin, 8 ounces to the gallon are also used.

In temporary encampments the shallow straddle trench is the best. Dirt is heaped upon both sides. For urine a soakage pit is used. This is three-foot cube, the soil at the bottom loosened and the pit filled with graded stones. Funnels are inserted in each corner. In the French trenches, a deep pit is constructed parallel and well behind the trench line. The passage way to the pit slopes from the main trench to prevent flooding during heavy rains. A platform is constructed around the pit which is 8 to 10 feet deep. After use, earth is thrown in when three-quarters full a coal tar deodorant is put in. Daily a disinfecting substance is added. The English place buckets in bomb-proof dugouts. The

buckets are removed by the relieved troops who bury the contents and bring the buckets with them on their return.

Directions for protection from cold, treatment of frost bite and corns, personal cleanliness and care of the feet are given. Frequent change and washing of clothing, daily change of socks, loose puttees and large shoes well greased are advised. Blisters are pricked at the end of the day and painted with tincture of iodine. For corns a solution of salicylic acid 60 grains, extract cannabis indica 8 grains, collodium one ounce is used. On the march one quart of water is given for every seven and a half miles marched. Coffee or tea before starting and something kept in the mouth during marching is advised.

Rats are best destroyed with phosphorous made up in 4% tablets. The French also use a virus which is placed on food. To destroy vermin, men are taken into rooms where there are hot baths. The clothing is removed and placed in strong disinfectant. After the use of soap and lysol clean sterilized clothing is put on and when necessary the heads are washed in a mixture of kerosene and olive oil and hair clipped.

Simulation of disease is often attempted by ingestion of picric acid. This causes a juandice color and constitutional reaction. Picric acid may be detected in the urine. Conjunctivitis is produced by means of irritating substances placed under the eyelid. The subcutaneous injection of kerosene or turpentine causes abscesses. These are sterile. Itch is simulated by pricking spaces between the fingers with a needle and rubbing with salt. Voluntary infection with venereal disease in order to avoid duty in the trenches is also known.

Water purification in the field is best carried out by boiling. For semi permanent encampments the Darnell filter is used. Chemical sterilization is most satisfactory. Hypochlorite of lime 30 grains per 100 gallons is the standard practice. Sodium Bisulphate in tablet form made up with oil of lemon and saccharine are used by the British when on the march. Two grams of the salt added to the contents of an English water bottle gives .07 per cent free H_2SO_4 which destroys bacteria in one-half hour. The solution, however, attacks metals and alloys. Aluminum bottles are most serviceable with these tablets.

E. K.

Military Medicine

MILITARY INSTRUCTION AND THE "ALBANY IDEA."

(*Continued from September* ANNALS, *p. 450.*)

The admirable work done by the Chemical Club in Albany in military preparedness has been demonstrated by an important pamphlet recently issued. As the scheme is of such far-reaching value, it has been thought wise to reprint it in the ANNALS so that it may receive a larger circulation than the privately distributed pamphlet, and may also have permanent record.

The following named physicians are the members of the Clinical Club who have accomplished this large task: Dr. ARTHUR J. BEDELL, Dr. FREDERICK C. CONWAY, Dr. ERASTUS CORNING, Dr. JOSEPH A. COX, Dr. MALCOLM DOUGLAS, Dr. EUGENE E. HINMAN, Dr. ELLIS KELLERT, Dr. JOSEPH A. LANAHAN, Dr. JOSEPH P. O'BRIEN, Dr. DANIEL V. O'LEARY, Dr. JAMES F. ROONEY, Dr. HARRY RULISON, Dr. JAMES N. VANDER VEER.

PROBLEM No. 5.

General Situation.

War has been in progress between the United States and a foreign power for a year and a half. Part of eastern Massachusetts, the southern parts of Rhode Island and Connecticut and the lower portion of the Hudson Valley are in the hands of the enemy.

United States forces are strongly intrenched in positions north of Saratoga in New York State and in positions along the Berkshires and extending through Southern New England and the lower Hudson Valley. Albany, N. Y., is being used as a base for these armies.

Special Situation.

Because of the congested conditions of the railroads running west from Albany, due to the movement of troops and munitions to and from the interior, it has been impossible to transport the large numbers of prisoners being taken and the alien civilian population that has been interned, to cities in the interior. Detention camps for these prisoners and detention camps for civilians are being established in this vicinity.

The Clinical Club has been charged with the management of all sanitary aspects of the problem thus arising.

The following is suggested as an outline for the solution of the foregoing problem.

The character of the stockade to be erected, guarding of prisoners and administration of camp are purposely omitted, and only the sanitary aspects are here considered.

PROBLEM No. 6.

Detention Camp Problem.

Sanitary Aspects.

This should be considered under two general headings:

Camp Hygiene and Personal Hygiene.

Camp Hygiene.

1. Sites available in relation to sufficient area—character of soil—amount of sunlight and shade—transportation facilities—exposure to prevailing winds, etc.

(The guide in relation to area is that it will require four acres per thousand persons, and this includes recreation grounds, hospitals, etc.).

Water Supply.

These camps will be of permanent or semi-permanent character and the water supply will approximate in character of distribution that of a city.

Sources of Supply.

Driven wells—tapping main sources of city supply. (Twenty gallons per person per day is guide to maximum required. This will be greater or lesser according to kind of latrines used.)

If water is contaminated, methods of purification should be outlined by filtration, boiling and chemical methods, and water should be examined at regular intervals to detect contamination. Safest of all methods for purification is chlorination method.

Sewage Disposal.

In considering this, note probable cost of labor and transportation available and necessary; the distance to be traversed; character of soil; and any unfavorable circumstances that may modify the plan thought to be the best one to adopt.

Permanent sewage systems such as are utilized in cities; character of plumbing and amount of piping needed. (Further outline of this will be found below under "Housing.")

Housing.

The possibility of utilizing large public buildings, in parks, etc., should be considered. (A one-story building 195 feet long by forty-five feet wide by fourteen feet in height will give ample air space for 200 persons with bed-sacks, clothing, etc. Window space two and one-half by five feet

and windows five feet apart.) Non-commissioned officers (prisoners) should have part of this building partitioned off for their use.

Buildings should be raised above ground about two feet; character of construction, wood, concrete, portable houses will vary according to local conditions of materials, labor, etc.

Bedding material needed; amount and character of same.

Baths.

Number needed and location of same; community showers; sterilizing rooms or large autoclaves for weekly sterilization of clothing; number required.

Kitchens.

Dimensions; number of cooks required.

Laundries.

Number required; machinery necessary.

Latrines.

Character will depend on locality; method of disposal of excreta.

Character of soil; proximity and possibility of contamination of camp and nearby cities water supply. Possible types; kind obtainable, etc. Ordinary closets and urinals flushed with water; open cement basins covered by seats; Harvard flush closets.

Pit latrines; number of latrines needed per one hundred persons and amount of material necessary for construction; deodorants and disinfectants needed and fly protection necessary.

Garages.

Fire protection; method of storage of gasolene.

General Fire Protection.

Sprinklers:

Fire plugs (hydrants) along streets; number needed will depend largely on type of construction of buildings; organization of fire companies and apparatus necessary.

Hospitals.

Will conform to plans on file in Surgeon-General's office.

Medical attendance necessary for camp. Staff for hospital should conform to general requirements for civilian hospitals. Hospital administration; nurses; number required. In addition one medical officer per five hundred persons in the camp will be required for overseeing sanitation and general medical work. Interned medical officers may be assigned to

duty. (Further remarks on this phase of the problem will be found in the suggested sanitary order that follows.)

Separate hospital facilities will be required for the isolation and treatment of communicable diseases; with due regard to pulmonary tuberculosis, syphilis.

Provisions should be made for inspection of all persons at regular intervals for the early detection of any contagious disease.

Regular inspections twice weekly of all persons, clothing, bedding, etc., for the detection of vermin. Details should be worked out for the prompt segregation of vermin infected individuals; the destruction of the vermin on person, clothing or bedding and the disinfection of buildings occupied by these persons.

Heating.

Stoves; coal and wood; open fireplaces; oil stoves; gas stoves.

Food.

The food available will depend upon the military necessity of the Campaign; of the troops at the front, and the civilian population; and should be worked out upon a caloric basis, of balanced diets reckoned per individual with special reference to the prevention of pellagra, scurvy and beri-beri.

Kosher meat will be required for Hebrews.

Prisoners (enlisted men and civilians) will probably not be furnished with knives and forks (because of the possible use as weapons) and food must be cooked in such a way as to be eaten with wooden spoons or such like utensils.

Refuse Disposal.

In estimating this consider cost, amount of labor and transportation necessary and available; distance to be traversed; character of soil; any other unfavorable circumstances that may modify the plan thought to be the best one to adopt.

Possible methods that might be utilized.

A—Incineration.

B—Refuse utilized as fuel.

C—As food for hogs in swine raising districts.

Method of sanitary policing.

Inspection, sanitary squads, etc.

Personal Hygiene.

Civilians and soldiers on arrival at detention camp should be quarantined for a minimum period of three weeks before mingling with other

occupants of the camp. A special portion of the camp should be reserved for new arrivals and contact with others be prevented; special methods are necessary and should be instituted for the detection of cholera and typhoid carriers, etc., all should be vaccinated against smallpox.

Methods of vermin destruction.

The following modeled after General Order 20, Division National Guard New York, 1911, is suggested as the basis for a sanitary order to govern a detention camp.

Blank Place,
Blank date.

General Orders

No. —

1. The senior medical officer will supervise the hygiene of the entire camp. Under his direction sanitary inspections of the entire camp will be made daily and as much oftener as necessary by a medical officer designated as Sanitary Inspector. Inspecting officers will call the attention of responsible officers directly to sanitary faults observed, and the latter officers will take the necessary steps to correct them. Any failure to remedy unsanitary conditions will be reported to the Commanding General.

2. The Sanitary Inspector will bring to the immediate attention of the proper commander any sanitary defects needing correction. He will make notes of his inspections and recommendations and submit these daily in person to the senior medical officer of the camp and report in writing any failures to remedy unsanitary conditions.

The medical officers assigned to each five hundred persons will make the sanitary inspections of all buildings, kitchens and the like used by these persons and organize a sanitary squad to assist him in this duty. Any sanitary defects found by him will be reported to the proper officers and promptly corrected. He will execute directions regarding sanitation received from the Sanitary Inspector.

3. General neatness and orderliness will be maintained at all times. The floors and walls of all buildings will be kept clean and sanitary. The interior of tents will be kept clean, the walls raised daily during the day time in fair weather and all buildings and tents adequately ventilated at night. Tents must be furled or struck occasionally.

4. Officers will be held responsible that kitchens, bath houses, company streets and surroundings are always kept clean and orderly. At fatigue call a detail of persons will be assigned to such duty, and provided with the necessary brooms, shovels, gunny sacks, etc., will make under the supervision of a commissioned officer a thorough police of its

camp ground and load the waste into wagons furnished for this purpose. These men will not be dismissed from police until so ordered by the proper officer after careful inspection of the work performed. The collected waste will be removed under the direction of the Sanitary Officer.

5. Closets and Urinals. The buildings, seats and surroundings will be kept at all times thoroughly policed, and the seats will be scrubbed daily with soap and water by men detailed from those using the closets and urinals. Toilet paper must be kept from blowing about or lying on the ground, and a light must be kept burning in each closet or urinal during the hours of darkness.

6. All food and water in camp will be protected from dust, flies and sun. An eating place will be established for each one hundred persons and individuals will not be allowed to take food into barracks or tents. All eating utensils will be thoroughly cleaned immediately after using. Garbage, until finally disposed of, will be placed in tightly covered cans, as will all liquid wastes, which will be reduced to the minimum, consistent with cleanliness. The throwing on the ground of water from the kitchens or water in which cooking or eating utensils have been washed is prohibited. Garbage cans will be kept on the same sites, preferably on stands, and the adjacent grounds or floor kept scrupulously clean. After being emptied the cans will be burned out with a wisp of straw, paper or kerosene and the outside will be kept clean.

7. Personal Cleanliness. Each individual in the camp must bathe at least twice weekly. Each individual must wash his hands thoroughly before each meal and after going to the toilets. Toilets and baths must be kept scrupulously clean.

8. A medical officer will be designated as Sanitary Officer. He will execute the directions he receives from the Sanitary Inspector. He will manage the final disposal of wastes and horse manure, the dumps and incinerators, and make every effort to maintain the camp in a sanitary condition. His directions as to the disposal of wastes and repairs to plumbing shall be obeyed by all concerned.

He will make daily requisition on the Quartermaster of the camp for such transportation, labor and material as he may need. When assigned to this service they shall not be diverted to other uses except by orders from this headquarters or else turned in as no longer needed.

9. The Sanitary Squad. In order to have a proper sanitary condition constantly maintained in every part of the camp, properly trained and instructed men, preferably drawn from the sanitary service, will be detailed for members, of the Sanitary Squad in the proportion of five to

each five hundred individuals. They will be assigned to their duty by the Sanitary Inspector.

The Sanitary Squads will make frequent inspections of kitchens, streets, toilets and baths in that portion of the camp assigned to them and draw the attention of proper non-commissioned officers or other responsible persons to sanitary defects requiring correction by them, instruct them in the proper method of correcting such defects and report the results of inspections to the medical officer in charge of the sanitation of the particular part of the camp to which they are assigned.

By command of MAJOR-GENERAL X.

X. Y. Z.,

Lieut.-Colonel, Adjutant-General.

The same principles of sanitation outlined for detention camps for military prisoners apply to interned civilians.

For these, separate camps should be established for men and women, excepting that children under puberty should be housed with the mother.

Buildings will have to be modified somewhat to accommodate mothers and children.

Schools will be required.

Officers will be confined in quarters separated from enlisted men and proper arrangements made for accommodations suitable to their grade and rank.

In all detention camps arrangements should be made to give opportunity for some form of work, recreation and exercise. This should be adapted to the national and racial characteristics of the persons confined, and the previous callings of groups of individuals.

Provision should be made for the re-education of crippled and blinded persons and where possible markets should be procured for their work.

Farms for raising vegetables might be established.

Organization.*

Land Forces of the United States.

1. The organized land forces of the United States consist of the Regular Army and of the Organized Militia when called into the military (land) service of the United States.

2. In peace the Army of the United States consists, ordinarily, of the Regular Army; but, whenever the United States is invaded or in danger of invasion from any foreign nation, or of rebellion against the authority of the Government of the United States, or the President is unable with the regular forces at his command to execute the laws of the Union, he may call into the military service of the United States all or any part of the militia organized as a land force.

* See "Outline of Subjects," No. II.

In war, or when war is imminent, the Army of the United States, after the Organized Militia has been called into service, may be (further) augmented by the employment of volunteers.

3. The Regular Army of the United States consists of regiments of infantry, cavalry, and field artillery, a coast artillery corps, general officers, general staff corps, an adjutant-general's department, an inspector general's department, a judge advocate general's department, a quartermaster corps, a medical department, a corps of engineers, an ordnance department, a signal corps, a military academy, chaplains, and such other officers and enlisted men as are provided for by law.

Units of Organization.

4. The company and regiment are both administrative and tactical units; the battalion and brigade are, as a rule, tactical only. The division is the great administrative and tactical unit forms the basis for army organization. A separate brigade is a command designated as such in orders from a competent authority.

5. Permanent brigades and divisions are created by the War Department. A brigade normally consists of the headquarters and three regiments of infantry. It is the appropriate command of a brigadier-general. For instruction at field exercises, maneuvers, etc., temporary brigades and divisions may be formed and the necessary staffs provided.

6. Division—A division normally consists of:

Troops: Headquarters, 3 brigades of infantry, 1 regiment of cavalry, 1 brigade of field artillery, 2 regiments, 1 pioneer battalion of engineers, 1 field battalion of signal troops, 4 ambulance companies, 4 field hospitals.

Service of supply: Officers and assistants, 1 ammunition train, 1 supply train, 1 pack train. Unless detatched therefrom, the pack train accompanies the supply train.

A division is the appropriate command of a major-general.

7. A cavalry brigade consists of the headquarters and two or more cavalry regiments, three being the normal organization. When the brigade acts independently, horse artillery is attached. A cavalry division consists of:

Troops: Headquarters, 2 or more cavalry brigades, 3 being the normal cavalry component, 1 regiment of horse artillery, 1 pioneer battalion of engineers (mounted). 1 field battalion of signal troops, 2 ambulance companies, 2 field hospitals.

Service of supply: Officers and assistants, 1 ammunition train, 1 supply train (including sanitary reserve), 2 or more pack trains. Unless detatched therefrom, the pack trains accompany the supply train.

A light bridge train is attached when necessary.

8. Divisions or brigades operating independently have the necessary additional troops and staffs attached. Detachments may also be organized, the composition and staffs being determined by the duty to be performed.

9. Divisions, including cavalry divisions, receive numerical designations in the order of their creation. Brigades are designated first, second, etc., in each division.

10. Field Army.—A command composed of two or more divisions and the necessary auxiliary troops, constitutes a field army. It receives a numerical designation, and is the appropriate command of a lieutenant-general. The auxiliary troops of a field army are ordinarily:

One cavalry brigade or division, 1 regiment or brigade of infantry, 1 regiment or brigade of heavy artillery, normally 1 battalion for each division in the field army, 1 pontoon battalion, 1 aero-wireless battalion, 1 ammunition train, 1 supply train, 1 ambulance company, 1 field hospital.

For purposes of administration, marching and camping, the auxiliary troops (less the cavalry) of a field army are generally united in rear of the divisions and when so united form the "auxiliary division." They are sent to the front when required. To this division may also be attached siege artillery and an engineer park, according to the nature of the operations, and cavalry when necessary. As far as practicable, the auxiliary division is maintained near the head of the line of communications.

11. Army.—A command composed of two or more field armies constitutes an army. It receives a territorial designation and is the appropriate command of a general. Field armies and armies are created only by authority of the President.

12. Line of Communications.—For each field army or important expeditionary force about to take the field, a base is selected and equipped and a service of the line of communications established, both under the control of the commander of the field army or expeditionary force.

The line of communications includes the base where depots of supplies and hospitals are maintained, and the supply or issue depots at the front. As the line advances intermediate bases may be established where supplies can be collected. When necessary for purposes of administration or defense, the line may be divided into sections and a subordinate commander assigned to each.

The duty of the commander of the line of communications is to keep the troops at the front provided with ample supplies of all kinds that may

be required, and to transport the sick and wounded to the base as rapidly as possible. To accomplish this he keeps the rail or water head of the line as near the army as possible, and establishes branch supply depots or stations in reach of the division field trains, using field railway or wagon transportation. The evacuation hospitals are generally placed near these division supply depots so that advantage may be taken of all available transportation.

The nature and amount of supplies required from the line of communications are indicated in orders from the commander of the field army. but the supplies are sent direct to the divisions or separate units.

When two or more field armies are united into an army, each field army, as a rule, maintains its own line of communications.

Commanders and Staffs.

13. Command.—In case of death, disability or absence of the commander of a body of troops, the next in rank in that body exercises command thereof until the commander returns or a new one is provided.

14. In matters relating to court-martial, the supply service, and money and property accountability, the administrative control vested in commanders of territorial departments devolves, in the field, upon division commanders under the orders of the commander of the field army or department. Commanders of separate brigades have the powers of division commanders.

15. Headquarters—The headquaarters of a command is the commander's official residence, or place from which his orders are issued; the term is also used to designate collectively the commander, his staff and personnel attached thereto. Battalions, squadrons, and higher units have headquarters.

The headquarters of brigades and higher units are provided with suitable guards, and the commanders of such guards are vested with authority to establish, arrange and command the headquarters camps. They direct the movements of, and furnish the guards for, the headquarters trains, and preserve order at headquarters.

In the field one squadron of the divisional cavalry of each division is, as a rule, detailed as provost guard, small guards being detached therefrom for duty at division headquarters and at the headquarters of the infantry brigades. The squadron commander acts as provost marshal of the division. He has charge of the division postal service and performs duties similar to those of the provost marshal general of a field army. The commanders and staffs of brigades, divisions, and field armies are provided with orderlies from the headquarters guards.

16. Staffs.—All military units larger than a company are provided with staffs whose number and rank vary with the size of the command. In

units larger than a brigade, and in separate commands under general officers, the staff serviceis under the supervision of an officer, when practicable, of the general staff, designated as chief of staff.

The staffs of commanders of the normal brigades and higher units herein authorized are as follows:

(a) Brigade, including cavalry brigade.

1 brigade adjutant, major (1 clerk, civilian).
2 aids, lieutenants.

(b) Division, including cavalry division.

1 chief of staff, colonel.
1 assistant chief of staff, major or captain.
1 division adjutant, major.
1 division inspector, major.
1 division judge advocate, major.
1 division quartermaster, lieutenant colonel.
1 division surgeon, lieutenant colonel.
3 aids, captains, or lieutenants.
6 clerks, civilian.

When necessary, the commanders of the battalions of engineers and signal troops may be directed, in addition to their other duties, to act, respectively, as division engineer and division signal officer. When a division acts independently a division engineer (lieutenant colonel) is detailed on the staff of the division commander.

(c) Auxiliary Division.

1 chief of staff, lieutenant colonel.
1 division adjutant, major.
1 division inspector, major.
1 division judge advocate, major.
1 division quartermaster, major.
1 division surgeon, major.
Personal aids.
3 clerks, civilians.

MEDICAL DEPARTMENT.*

The Medical Department consists of a surgeon general, and of the commissioned and enlisted personnel, nurses, and dental surgeons authorized by law for that department. The personnel of the department and all other persons assigned to duty with that department are collectively called sanitary troops.

For duty in the field, sanitary troops are divided into (1) those assigned to regiments and other units, and (2) those formed into independent sanitary units, such as ambulance companies and field hospitals.

*See "Outline of Subjects," No. IV.

Duties of Medical Officers.†

Medical officers are charged with the duty of investigating the sanitary condition of the Army (and with State troops of the National Guard) and making recommendations in reference thereto, of advising with reference to the location of camps and adoption of systems of water supply and purification, and the disposal of wastes, with the duty of caring for the sick and wounded, making physical examinations of officers, enlisted men and applicants for commissions or enlistment, the management and control of military hospitals, the recruitment, instruction and control of the hospital corps.

The surgeon, under the direction of the commanding officer, shall supervise the hygiene of the post or command, and recommend such measures as he may deem necessary to prevent or diminish disease. He shall examine at intervals specified in Regulations the sanitary condition of the post and report the result in writing to the commanding officer of the post. He shall recommend such measures as he may deem necessary to prevent or diminish disease among the troops. He shall examine at intervals specified in Regulations the sanitary condition of the camp and all buildings, the drainage and the amount and quality of the water supply the clothing and habits of the men, the character and cooking of the rations, and shall immediately after such examination make report thereof, in writing, to the commanding officer with such recommendations as he deems proper. The commanding officer shall return the report with his views thereon, and if he deem the action recommended impracticable or undesirable shall state fully his objections. A copy of the report and indorsement shall be forwarded by the medical officer, through the regular channels to the Surgeon-General in the Army and (to the Chief Surgeon Division in New York State) for his information.

Men desiring to enlist or re-enlist shall be examined in accordance with the following instructions, and shall not be accepted unless they pass the medical examination.

The following instructions will govern recruiting for the Regular Army on and after November 1, 1912:

Applicants for first enlistment must be between the ages of 18 and 35 years, of good character and temperate habits, able-bodied, free from disease, and must be able to speak, read, and write the English language.

No person under 18 years of age will be enlisted, re-enlisted, or accepted with a view to enlistment, and minors between the ages of 18 and 21 years must not be enlisted, nor accepted with a view to enlistment, without the written consent of the father, only surviving parent, or legally appointed guardian, to the minor's enlistment.

No man who has been a member of the Organized Militia of any State, territory, or the District of Columbia will be enlisted in the Regular Army until he presents satisfactory evidence that he has been honorably dis-

†See "Outline of Subjects," No. X.

charged therefrom. In no case shall an applicant known to be a member of the Organized Militia be accepted at a recruiting station with a view to enlistment. Recruiting officers will question carefully all applicants regarding membership in militia organizations and will require those who acknowledge themselves to be or to have been members of such organizations to exhibit their discharges therefrom before accepting them.

Original enlistments will be confined to persons who are citizens of the United States or Porto Rico, or who have made legal declaration of their intention to become citizens of the United States. Applicants for original enlistment who claim to have been naturalized or to have declared their intention to become citizens of the United States will not be accepted for enlistment nor enlisted unless they exhibit to the recruiting officer documentary evidence, under the seal of a court of competent jurisdiction, of their naturalization or their declaration of intention to become citizens. The notation "certificate of naturalization exhibited" or "copy of declaration of intention exhibited," with date, serial number, and title of court from which issued, will be made by the accepting officer, under the head of remarks, on the report of physical examination, Form No. 135, A. G. O., in the case of each such applicant who is accepted.

Married men will be enlisted only upon the approval of a regimental commander or other proper commanding officer if for other than a regimental organization.

Applicants will be required to satisfy the recruiting officer regarding age and character, and should be prepared to furnish the necessary evidence.

For infantry, Coast Artillery, and Engineers the height must be not less than five feet four inches and weight not more than one hundred and ninety (190) pounds.

For Cavalry the height must not be less than five feet four inches and not more than five feet ten inches, and weight not to exceed one hundred and sixty-five (165) pounds.

For Field Artillery the height must not be less than five feet four inches and not more than six feet, and weight not more than one hundred and ninety (190) pounds. For the mountain batteries the height must not be less than five feet eight inches.

A variation not exceeding a fraction of an inch above the maximum height given for Cavalry and Field Artillery is permissible if the applicant is in good health and is in other respects desirable as a recruit.

The minimum weight for all arms of the service is one hundred and twenty-eight (128) pounds, subject to variations below that standard as explained herein, but in no case will an applicant whose weight falls below one hundred and twenty (120) pounds be accepted without special authority from the Adjutant General of the Army.

The Military Law of New York State (Sec. 95, Art. V) provides for the enlistment in the National Guard under certain restrictions "that men

who are sixteen years and more of age may be enlisted as musicians." Also the age limit for enlistment is forty-five years and no restrictions as to married men.

In passing a recruit, the medical officer shall examine, weigh and measure him stripped; see that he has free use of his limbs; that his chest is ample; that his hearing, vision and speech conform to requirements; that he has no tumors or ulcerated or extensively cicatrized legs; no hernia or chronic cutaneous affection; that he has not received any contusion or wound of the head that may impair his faculties; that he is not a drunkard; is not subject to convulsions; and has no infections or other disorders that may unfit him for military service. The recruit must be effective, able-bodied, sober and free from disease.

A. The room in which the examination is conducted should be well lighted and large enough for the men to exercise in walking, running and jumping, as every organ directly concerned in locomotion should be subjected to inspection. Only those persons who are absolutely required should be present at the examination.

B. The person of the recruit shall be clean.

No one shall interefere with medical officers in the examination, nor attempt in any way to influence their decisions.

The vision of each eye shall be tested separately, and without correcting lenses at a distance of not less than twenty feet and recorded separately. The hearing of each ear shall be tested separately. Men who are apparently under the influence of any drug or alcohol or who have been drinking freely and men who are habitually dirty in person or clothing shall be rejected.

The following are the standard requirements:

a. The following table is given for convenience of reference:

MEASUREMENTS.

Height Inches	Weight Pounds	Chest measurements at expiration Inches	Mobility Inches
64	128	32	B
65	130	32	2
66	132	32½	2
67	134	33	2
68	141	33¼	2½
69	148	33½	2½
70	155	34	2½
71	161	34¼	2½
72	169	34¾	3
73	176	35¼	3

b. It is not necessary that the applicant conform exactly to the figures indicated in the foregoing table. The following variations below the

standard given in the table are permissible when the applicant for enlistment is active, has firm muscles, and is evidently vigorous and healthy:

Height Inches	Chest at expiration Inches	Weights Pounds
64 and under 68	2	8
68 and under 69	2	12
69 and under 70	2	20
70 and upward	2	15

c. Minimum height, five feet four inches.

d. Minimum chest measurement at end of normal expiration, thirty-two inches.

e. Minimum mobility, two inches.

f. Minimum weight for all arms of the service, 125 pounds.

g. Maximum weight for cavalry and men who will be mounted, 165 pounds. For all other arms of the service, 190 pounds. A recruit of greater weight than 190 pounds may be in every way qualified for the service and whether he be or be not thus qualified will depend much more on his height, chest and abdominal circumference as compared with his height than on the mere fact of weight alone.

h. No organic disease of eye or lids. Right eye 20/40, left eye, 20/100 for line. For Hospital Corps, 20/70 correctible to 20/20. In the signal corps freedom from color blindness.

i. Hearing normal in each ear. Freedom from organic disease of each ear.

j. Normal articulation. Freedom from organic disease or deformities of the organs of speech.

The following diseases, conditions and deformities shall cause rejection:

All forms of acute disease; contagious or communicable disease, every chronic organic disease; including rheumatism and gout; repeated attacks of acute articular and muscular rheumatism, or of sciatica; asthma, hay fever, chronic laryngitis, all forms of valvular heart disease, or of nephritis, high arterial tension, aneurism, hernia, epilepsy, mental aberration, depravity, cystitis, organic and chronic functional disease of the nervous system, marked knock-knee and bow legs, syphilis, all form of tuberculosis, chronic ulcers, deformities, and results of previous injuries of such degree as to manifestly render the recruit unfit for military duty, hydrocele, fistula in ano, the loss of a great toe, a thumb, or of any two

(*To be continued*)

TYPHOID FEVER

PROPHYLAXIS.
DIAGNOSIS.
TREATMENT.

Typhoid Vaccine, Prophylactic.

For protective inoculation against typhoid fever.

The immunizing power of this vaccine is fully established.

Bio. 427—3 bulbs; 3 doses. Bio. 428—1 syringe; 3 doses.
*Bio. 426—3 syringes; 3 doses. Bio. 429—Hospital package, 30 doses.
*Supplied on unspecified orders.

Literature with each package.

Typhoid Agglutometer.

For diagnosis of typhoid fever.

The Widal Test without the use of either a live culture or a microscope.

Two forms: Typhoid Agglutometer No. 1 and Typhoid Agglutometer No. 2.
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The attention of physicians is called to the advantages which this institution offers in methods of laboratory diagnosis. Many physicians, through lack of time, technical training, or proper laboratory equipment, find it difficult to utilize the many methods of microscopical and chemical examination, so essential to proper diagnosis. To the Alumni of the Albany Medical School, and to physicians generally, the Bender Laboratory offers at a moderate cost, facilities for such examinations. Animal inoculation, chemical, bacteriological and histological examinations will be made as the case requires.

The following directions are appended for the benefit of those who may forward material:

All specimens should be accompanied by a brief note of the clinical condition and a special reference to the character of the examination desired. Name and address of person to whom report is to be sent should be clearly indicated.

1.—Pathological material from either operation or autopsy should be wrapped in moist gauze surrounded by oiled paper or rubber protective. When it is not possible for material to reach the laboratory within twenty-four hours, it should be placed in alcohol (80%) or formalin solution (10%). Small fragments of tissue and the material from uterine curettage should always be so preserved.

2.—Sputum should be sent in clean wide-mouth bottles; the ordinary vaseline bottle answers all purposes. The same bottle is suitable for faeces. Urine should be in clean bottles containing not less than six ounces.

3.—Exudates and other material requiring a bacteriological examination by culture should be placed in containers previously sterilized by heat (not chemical disinfectants).

4.—Outfits for special purposes, as diphtheria cultures, Widal reaction, vaccines, Wassermann reactions, etc., will be sent upon application.

5.—Tissues and fluids for animal inoculation, e. g., hydrophobia, tetanus, tuberculosis, etc., are best sent packed in ice. In cases of suspected hydrophobia it is advisable to send the entire animal without injury to the brain or cord.

6.—Haematological examinations at the patient's home will be made by appointment.

7.—Milk and water for bacteriological examination should be sent in sterile glass containers, packed in ice. Special instructions for the collection of samples may be had upon application.

8.—Members of the staff are at all times available for the purpose of conducting post-mortem examinations.

9.—The fee for complete haematological examination at patient's home is $10.00; for post-mortem examination, according to the nature of the case and the time consumed; for the Wassermann reaction, $10.00; all other examinations, a uniform fee of $5.00. A special contract may be made for weekly or monthly examinations of milk. In the case of patients who cannot pay the full amount, these fees will be reduced.

Reports will be sent by telegraph if requested.

Letters and specimens should be addressed to

THE BENDER HYGIENIC LABORATORY,
LAKE AVENUE, ALBANY, N. Y.

THE BRANDOW PRINTING COMPANY, ALBANY, N. Y.

FOUNDED 1838

UNION UNIVERSITY

MEDICAL DEPARTMENT

Albany Medical College

A complete reorganization was effected in 1915. Largely increased hospital facilities were provided with teaching services both in medicine and surgery, students having immediate responsibility under supervision. The laboratory staff has been increased and the courses rearranged to conform to improved methods. With these changes, it is believed that the Albany Medical College is prepared to furnish instruction which will meet the highest demands of modern medical education.

Admission Requirements: Each candidate must furnish evidence of the satisfactory completion, in a recognized college or scientific school, of at least one year's course of study including, French, German or English, biology, physics and chemistry, or an equivalent. Beginning with January 1, 1918, two years of college work will be required. Classes are restricted in number. Women are admitted. Union College, the academic department of Union University, Schenectady, N. Y., has arranged for such a course.

Tuition: The charge for tuition is $160.00 a year and $5.00 for matriculation. There are no extra fees except for rental of microscopes, laboratory breakage, and certain expensive supplies.

The academic year begins Sept. 24, 1917. All inquiries and other communications should be addressed to Thomas Ordway, M.D., Dean, Albany Medical College, Albany, N. Y.